Before the

FEDERAL COMMUNICATIONS COMMISSION
Washington, DC. 20554

In the Matter of	)	
	)	
Changes in Part 97	)	**04 - 37**
With Regard to Broadband Over	)	
Powerline (BPL)	)	

To: The Commission

I would like to thank the Commission for the opportunity to comment on 04-37. I am Amateur Radio Operator KC0ARF who was licensed in 1997, and I am a Technician Class operator. I am particularly active in Skywarn weather collection activities, along with Amateur Radio social activities. I am also a certified network administrator, and work extensively with computer networks on a daily basis.

I feel that Broadband Over Powerline (BPL) is bad technology, as the rewards (functionality) come with extreme radiological consequences.

Electromagnetic Noise

I am very concerned about BPL's expected radio noise. As an amateur radio operator, I could live with a short, random beep, but BPL is a continual destructive interference that will destroy general communications.

The NTIA recently published their findings from Phase I of their study. I encourage the FCC to examine the NTIA report, and in particular look at Sections 3, and Appendix C. In Section 3, in figure 3-1 (page 5), look at how strong the Electric Field Strength compared with other countries. Perhaps the FCC should investigate why the emissions are so strong as compared to European samples. Also, please examine Appendix C, where the NTIA highlights all of the services that will suffer from BPL installations.

I also challenge the FCC's assertion that Amateur Radio Operators may easily re-orient their antennas away from the source of the noise. Some antenna installations feature a beam and rotor approach, operators always aim antennas at the station they are talking to. Beams work like rifles—they focus signals towards a target. But, other installations, known as dipoles, are fixed antenna installations that are often installed in convenient locations, such as trees, flagpoles, and buildings. Dipole antennas are long wire designs, and are permanent.

I also disagree with the assertion that BPL companies will be able to easily "notch" out interference easily. Assuming that they wish to keep their subscribers online, what was once a problem at X frequency will now turn into a problem on Y. At some point, the company is going to get frustrated responding to all of the change requests. At that point, what strength will the FCC guarantee to ensure licensed services continue to be protected?

Civil Protections

My second major concern with BPL will be the battle of property owners concerning operational access. Will the BPL customer understand that when my licensed amateur radio station is in use, that it will likely disturb / destroy their BPL connection? My station, with 1500 watts ERP authorized use, will likely interfere with their installation… perhaps even overload their circuits and perhaps burn them out. Will the BPL customer (my neighbor) try to hold me liable for his unlicensed equipment failure? Will the BPL company (my utility) try to hold me liable for their equipment failure?

As an amateur radio operator, I am easily identified in the neighborhood. There are a couple antennas installed on my truck, and there are two antennas on the house. I talk with my neighbors, asking them to let me know if any of my signals get into their TV, or telephone, or stereo system, that they contact me at once and let me know so I can stop. I want to be a friendly guy, and be respectful of their processes within their own home. But let's say that some Citizens Band (CB) operator transmitting while mobile is actually the source of the interference. Will the FCC provide me protection from this liability?

I strongly encourage the FCC to require BPL companies to require consumer notification that their network is at risk. At minimum, the BPL company should provide for a signed contract where risks are outlined, and circumstances explained that Amateur Radio Operators (please name us!) and other sources of licensed transmissions are not responsible for a disruption of services. This will require some education for the consumer, but I think it is also necessary for community harmony.

Unclean Power Concerns

I am concerned about unclean power. Instead of a simple 60 Hz alternating current electrical signal, the power feed will now have computer data encoded upon it. Has anyone tested medical equipment and other sensitive devices to see if the unclean signals affect the circuitry inside? Will BPL companies be liable for equipment malfunctions? Will they supply and install on demand devices at the point of service to block BPL from entering the household or hospital? Will BPL signals interfere

with my already installed computer network devices? In order to promote stability to my networks, I would so order filtering devices to protect my installed infrastructure.

Suggestions

I would like to summarize my thoughts below:

- BPL Customers must be educated on the instability of their networks. They will be open to RF interference, and be prone to denials of service due to that interference. Licensed services must be protected from them.
- BPL Suppliers (Companies) must be given, in specific language, policy on protecting licensed services. Suppliers must provide contact information to resolve interference issues, and more importantly, be given clear instructions that resolutions cannot wait. Response must be immediate, and spelled out in terms of minutes or hours.
- The FCC must provide specific language on what interference means. How can affected parties define interference, and how can we prove that it exists?
- The FCC must protect licensed services. The NTIA report in Appendix C lists a lot of users of the RF Spectrum.
- If possible, would the FCC be able to give the BPL people their own slice of spectrum, so that they are isolated from other services?

I would like to thank the FCC for providing me the opportunity to comment. While I fear that political forces will outweigh logical and scientific thought, my faith remains in the system that the FCC will do the right thing, and ensure spectrum preservation for the future.

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